



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,403	05/17/2006	Josef Rainer	RAINERETAL1PCT	5901
25889	7590	04/25/2011		
COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER BROCKMAN, ANGEL T	
			ART UNIT	PAPER NUMBER
			2463	
			MAIL DATE	DELIVERY MODE
			04/25/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,403	RAINER ET AL.	
	Examiner	Art Unit	
	ANGEL BROCKMAN	2463	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 1-7 were formerly rejected under 35 U.S.C. 103 (a). Pursuant to applicant's amendments these rejections have been withdrawn.

Response to Arguments

Applicant's arguments, see Remarks filed March 21, 2011 with respect to claims 1-7 have been fully considered and are persuasive. The 35 U.S.C. 103 (a) rejections of claims 1-8 have been withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-7 are rejected under 35 U.S.C. 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding **claims 1-7**, The numerals with parentheses should be removed from the claims.

Regarding **claim 1, line 1** recites "a system." However, the claim does not include clear physical structures forming the system.

Regarding **claim 6**, line 3 recites "as is known." This language should be removed from the claim.

Claim Rejections - 35 USC § 103

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoenniger, III et al. (US 4,885,538, hereinafter Hoenniger) in view of Machida et al. (US 6,122,257, hereinafter Machida).

Art Unit: 2463

Regarding **claim 1**, Hoenniger discloses a system for transmitting data in bi-directional bus with at control device comprising a send and receiving unit for data fields combined into a data frame(column 10, lines 1-27, figure 2, wherein 100 is the control device) and with bus subscribers (figure 2) with at least the bus subscriber at the bus end opposite of the control device comprising a send device for a data frame (figure 2, each subscriber is able to transmit)wherein at least the bus subscriber at the end of the bus comprises a control stage which is activated by a received frame sent by a control device over the serial bi-directional bus and triggers the send device depending on the receipt of a data frame within the terms of the transmission of a data frame for at least the data fields of the bus subscribers(column 10, lines 45-67, column 11, lines 21-45) for sending a data frame over the serial bidirectional bus in the direction of the control device (1) (column 11, lines 65-67, column 12, lines 1-12) whereas the sent data frame contains at least data fields (14,15,16) for all bus subscribers (2,3,4) and the data frame is handed over from one bus subscriber to the next bus subscriber (column 11, lines 49-67).

Hoenniger does not disclose wherein each bus subscriber (2,3,4) comprises a test circuit (24) to determine whether it is located at the bus end opposite of the control device.

Machida discloses wherein each bus subscriber (2,3,4) comprises a test circuit (24) to determine whether it is located at the bus end opposite of the control device (figure 1, 20 , wherein the terminal address detecting circuit and terminal resistance include the test circuit, column 7, lines 25-37) . Thus, it would have been obvious to the one of ordinary skill in the art at the time of invention to utilize the teachings as disclosed by Machida along with the system of Hoenniger .The test circuit as disclosed by Machida can be implemented in the system of Hoenniger through hardware implementation. The

Art Unit: 2463

motivation for utilizing the test circuit as disclosed by Machida along with the system of Hoenniger is to increase the efficiency of the system by detecting errors at each bus subscriber.

Regarding **claim 2** Hoenniger discloses wherein each of the bus subscribers comprises a control stage for a send device for sending a data frame for the own data fields and the data fields of the bus subscribers which lie between the control device and the respective bus subscribers (column 10, lines 45-50)

Regarding **claim 3**, Hoenniger discloses the bus subscribers comprise a memory for the position of the data fields within the respective data frame which data fields can be read in and out via the evaluation circuit (§[0028],§[0025]).

Regarding **claim 4**, Hoenniger discloses the control device comprises an allocation stage for the position of the data fields within a data frame which can be allocated to the individual bus subscribers (figure 2A, wherein 192,194..are the data fields, column 10, lines 60-67) and an initialization device for reading out the positional data in data fields of a data frame addressed to the individual bus subscribers(column 11, lines 20-45), and that the bus subscribers comprise an initialization circuit for the address-related reading out of the positional data from the addressed data fields of the data frame into the memory for these positional data(column 15, lines 1-30, column 15, lines 60-67).

Regarding **claim 5**, Hoenniger discloses each bus subscriber comprises a test circuit for recognizing a bus subscriber connected to the bus and connected in outgoing circuit with the same (column 15, lines 50-67, column 14, lines 35-50, figure 3A).

Art Unit: 2463

Regarding **claim 6**, Hoennigerr discloses the control device and the bus subscribers each comprise an encoding device for producing check data from the data frame and that, as is known, the control device and the bus subscribers each comprise a check device for check data received with the data frames(column 15, lines 1-10).

Regarding **claim 7**, Hoennigerr discloses the control device comprises an address memory for the addresses of the bus subscribers(column 5, lines 38-52, column 7, lines 65-67-column 8, lines 1-5) and that each bus subscriber comprises a recognition circuit for triggering the evaluation circuit for reading out the data field in the data frame addressed to the bus subscriber on the one hand and for reading in its data field into the data frame on the other hand (column 15, lines 50-67, column 14, lines 35-50, figure 3A)

Regarding **claim 8**, Hoenniger discloses multiple data fields are sent simultaneously in a single data frame at a time (figure 2A).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGEL BROCKMAN whose telephone number is (571)270-5664. The examiner can normally be reached on Monday-Friday ,7:30-5:00pm.
6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick Ferris can be reached on 571-272-3123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

Art Unit: 2463

information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ANGEL BROCKMAN
Examiner
Art Unit 2463

/A. B./
Examiner, Art Unit 2463

/DERRICK FERRIS/
Supervisory Patent Examiner, Art Unit 2463